

## SHORT REPORT AND EXECUTIVE SUMMARY

				Reference:	CA18/2/3/9591	
<b>Aircraft Registration</b>	<b>ZS-HXX</b>	<b>Date of Accident</b>	26 December 2016		<b>Time of Accident</b>	0940:Z
<b>Type of Aircraft</b>	Robinson R44 II Helicopter		<b>Type of Operation</b>	Private- Part 91		
<b>Pilot-in-command Licence Type</b>		Private Pilot Helicopter	<b>Age</b>	53	<b>Licence Valid</b>	Yes
<b>Pilot-in-command Flying Experience</b>			585.9	<b>Hours on Type</b>	253.2	
<b>Last point of departure</b>		Stellenbosch Airfield (FASH) : Western Cape				
<b>Next point of intended landing</b>		Worcester Airfield (FAWC): Western Cape				
<b>Location of the accident site with reference to easily defined geographical points (GPS readings if possible)</b>						
De Zalze Estate 0.5nm north east of FASH (GPS S 33° 58' 23.69" E 018° 49' 41.88") elevation 246 feet						
<b>Meteorological Information</b>		Wind direction and speed: 019/02 knots CAVOK Temperature: 30°				
<b>Number of people on board</b>	1+1	<b>No. of people injured</b>	0	<b>No. of people killed</b>	0	
<b>Synopsis</b>						
<p>The pilot accompanied by a passenger departed FASH for a private flight to Worcester aerodrome. The pilot reported that start and lift off were uneventful.</p> <p>A few minutes after take-off overhead Stellenbosch town, while the helicopter was passing 2000 feet above ground level (AGL), the governor warning light switched on. According to the pilot's statement he switched the governor on and off but the warning light remained on. The pilot decided to divert back to Stellenbosch airfield for a full stop landing. The pilot stated that he descended on the eastern side of the airfield and joined the right downwind for runway 19. The pilot reported that during the turn for final approach runway 19 the low rotor RPM warning sounded. The pilot opted to execute an emergency landing on a De Zalze Golf Estate 0.5nm north east of Stellenbosch airfield. The pilot reported that during landing the helicopter landed hard and rolled onto its right hand side. The main rotor blades struck the ground as the helicopter came to rest.</p> <p>The pilot and passenger who were not injured in the accident sequence disembarked from the helicopter. The helicopter sustained damages to; the skids, main rotor blades, and tail rotor.</p>						
<b>Probable Cause</b>						
<p>Unsuccessful forced landing following a Low rotor RPM</p> <p><u>Contributory Factor</u></p> <p>Governor failure</p>						
SRP Date		25 April 2017		Release Date		05 May 2017
CA12-13		01 FEBRUARY 2017			Page 1 of 4	

## AIRCRAFT ACCIDENT REPORT

**Name of Owner/Operator** : Arnold Du Bruin and Associates (PTY) LTD  
**Manufacturer** : Robinson Helicopter Company  
**Model** : R44II  
**Nationality** : South African  
**Registration Marks** : ZS-HXX  
**Place** : De Zalze Golf Estate north east of FASH  
**Date** : 26 December 2016  
**Time** : 09:40Z

*All times given in this report are Co-ordinated Universal Time (UTC) and will be denoted by (Z). South African Standard Time is UTC plus 2 hours.*

### Purpose of the Investigation:

*In terms of Regulation 12.03.1 of the Civil Aviation Regulations (2011) this report was compiled in the interest of the promotion of aviation safety and the reduction of the risk of aviation accidents or incidents and **not to establish legal liability**.*

### Disclaimer:

*This report is produced without prejudice to the rights of the CAA, which are reserved.*

## 1. FACTUAL INFORMATION

### 1.1 History of Flight

1.1.1 The pilot and a passenger departed FASH on a private flight to FAWC. The pilot stated that start and lift off were uneventful.

- 1.1.2 According to the pilot statement; few minutes after take-off from FASH overhead Stellenbosch town while the helicopter was passing 2000 feet AGL, the governor warning light illuminated and as a result the pilot checked all the circuit breakers. The pilot stated that he tried to switch the governor on and off, but the governor warning light remained on.
- 1.1.3 The pilot stated that he decided to return to FASH, and on arrival he descended on the eastern side of the airfield to join for the right downwind for runway 19. The pilot further stated that he managed to keep the rotor RPM in the green range using the throttle on the collective.
- 1.1.4 The pilot reported that during the turn for final approach for runway 19 the low rotor RPM warning sounded. Since the helicopter was low the pilot decided to land on De Zalze Golf Estate 0.5nm north east of FASH airfield. The pilot reported that during landing the helicopter landed hard and rolled onto its right hand side as shown in figure 1 below. The main rotor blades struck the ground as the helicopter came to rest.



Figure 1: View of the helicopter after it came to rest.

## **1.2 Investigation Revealed The Following:**

### **Pilot**

- 1.2.1 Pilot licence was valid from 31 July 2009 to 30 July 2019 and his medical was valid, with an expiry date of 30 June 2017.
- 1.2.2 The pilot had no restrictions in terms of the issuance of his licence by the regulator.
- 1.2.3 The pilot and passenger had to divert back to FASH due to the governor failure. While turning final approach for runway 19 the low rotor RPM warning sounded. Since the helicopter was low the pilot decided to land on De Zalze Golf Estate 0.5nm north east of FASH airfield. During landing the helicopter landed hard and rolled onto its right hand side. The main rotor blades struck the ground as the helicopter came to rest.

### **Aircraft**

- 1.2.6 The helicopter was manufactured by the Robinson Helicopter Company.
- 1.2.7 The helicopter had a total of 231 airframe hours at the time of the accident.
- 1.2.8 The last annual inspection on the helicopter was carried out on 21 October 2016 at 226.7 hours. The helicopter had flown 4.3 since the last inspection.
- 1.2.9 The Lycoming IO-540-AE1AS engine (SN# L-33739-48E) hours since new were 231
- 1.2.10 The Main rotor (SN #:5935) hours since new were unknown.
- 1.2.11 The helicopter sustained damages the skids, main rotor blades, and tail rotor.

## **2. CONCLUSION**

### **2.1 Probable Cause/s**

- 2.1.1 Unsuccessful forced landing following a low rotor RPM
- 2.1.2 Contributory Factor  
Governor failure

## **3. SAFETY RECOMMENDATIONS**

- 3.1 None

## **4. APPENDICES**

- 4.1 None